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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/789,321

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Hiroaki Ando

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1933 7590 06/25/2007  
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EXAMINER

SHAH, MANISH S

ART UNIT

PAPER NUMBER

2853

MAIL DATE

DELIVERY MODE

06/25/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/789,321

Applicant(s)

ANDO ET AL.

Examiner

Manish S. Shah

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                               | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                      | 5) <input type="checkbox"/> Notice of Informal Patent Application                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 3-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Winnik et al. (# US 5100471).

Winnik et al. discloses a method of forming an image using an inkjet recording apparatus (column: 7, line: 30-45), and a water based ink composition (see Abstract), wherein ink comprising a colored microparticle dispersion having water and microparticle containing a resin (polymeric material) and a colorant (see Abstract; column: 5, line: 25-65), wherein the microparticle has a core part and shell part to form a core-shell structure (see Abstract; column: 5, line: 25-40) and the core part and shell part are cross-linked with a cross-linking agent (column: 5, line: 50-65), wherein a polymerized emulsifying compound is used to prepare the colored microparticle dispersion (see Examples). They also disclose that the a volume average particle diameter of microparticle is 10 to 100 nm (column: 5, line: 25-30), wherein a variation coefficient of the volume average diameter is not more than 80% (see Examples).

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1 & 3-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Ganapathiappan (# US 2004/0131855).

Ganapathiappan discloses a method of forming an image using a water based ink composition ([0043]), which comprising a colored microparticle dispersion having water and microparticle containing a resin (polymeric material) and a colorant ([0043]), wherein the microparticle has a core part and shell part to form a core-shell structure (see Abstract; [0007], [0018] and the core part and shell part are cross-linked with a cross-linking agent ([0007], [0024]), wherein a polymerized emulsifying compound is used to prepare the colored microparticle dispersion ([0042]). They also disclose that the a volume average particle diameter of microparticle is 10 to 100 nm ([0033]), wherein a variation coefficient of the volume average diameter is not more than 80% (see Examples; [0034]).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Winnik et al. (# US 5100471) in view of Smith et al. (# US 6142618).

Winnik et al. discloses the cross linker includes poly functional polymerizable group. However they didn't disclose that microparticle has a general formula  $-Z-R$ , wherein Z is ethylene oxide having molecular weight of 88-30000, and R is a hydrogen.

Smith et al. teaches that to have a bleed free printed image, ink composition containing the polymer has a general formula  $-Z-R$ , wherein Z is ethylene oxide having molecular weight of 88-30000, and R is a hydrogen (column: 10, line: 65 to column: 13, line: 10).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the ink composition of Winnik et al. by the aforementioned teaching of Smith et al. in order to have a bleed free high quality printed image.

4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ganapathiappan (# US 2004/0131855) in view of Smith et al. (# US 6142618).

Ganapathiappan discloses the cross linker includes poly functional polymerizable group with molecular weight of 400 to 6000 ([0024]). However they didn't disclose that microparticle has a general formula  $-Z-R$ , wherein Z is ethylene oxide having molecular weight of 88-30000, and R is a hydrogen.

Smith et al. teaches that to have a bleed free printed image, ink composition containing the polymer has a general formula  $-Z-R$ , wherein Z is ethylene oxide having

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molecular weight of 88-30000, and R is a hydrogen (column: 10, line: 65 to column: 13, line: 10).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the ink composition of Ganapathiappan by the aforementioned teaching of Smith et al. in order to have a bleed free high quality printed image.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Manish S. Shah whose telephone number is (571) 272-2152. The examiner can normally be reached on 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Manish S. Shah  
Primary Examiner  
Art Unit 2853

MSS

6/18/07